



Trip Report: Field Interviews with EARTH University's (Escuela de Agricultura de la Región Tropical Húmeda) Permanent Education Program (PEP)

Dates: Tuesday, February 23 – Friday, February 26, 2016

Traveler(s): Henry Quesada-Pineda, Associate professor, Department of Sustainable Biomaterials and John Ignosh, Extension Specialist, Department of Biological Systems Engineering

Institution(s): Virginia Tech

Background:

During 2014, a group of researchers working in the InnovATE project conducted a scoping mission in Nicaragua. Two specific recommendations of the scoping mission are critical to continued capacity development in agricultural education and training: 1) a case study on successful vocational programs for entrepreneurship, and 2) development of a train-the-trainer (T³) program for agricultural vocational teachers in tropical countries to produce home-grown entrepreneurs. In-depth case studies that reflect successful vocational training programs are recognized as a key output for the improvement of other similar programs in developing countries. To follow through with this work, InnovATE investigators returned to the vocational training program FADCANIC in Wawashang, Nicaragua in late 2015 to document educational efforts in entrepreneurship through a series of interviews with administrators, teachers, students, and alumni. The second component of this work consisted of investigators conducting a site visit and series of interviews in late-February 2016 at the *Escuela de Agricultura de la Región Tropical Húmeda* (EARTH) University in Guácimo, Costa Rica. EARTH was established in 1986 with the support of the Costa Rican government, USAID, and the Kellogg Foundation.

Purpose:

EARTH University has a strong reputation for producing high performing graduates that emerge as entrepreneurs within the agricultural sector across the tropical regions of the globe. This project is interested in the potential for replication of the institutional model for producing such entrepreneurs at the local level across the greater region, with participants outside of EARTH University students. FADCANIC appears to provide a successful example. Given the

similarity between the models of EARTH University and FADCANIC it is strongly believed that EARTH University can be an excellent benchmark for the development of and support for such local TVET programs.

The current focus of this investigation seeks to determine how EARTH University's strong agricultural program could be connected to regional TVET programs to support training needs, with delivery agents informed by pedagogical best practices for maximum impact, across the region. The goal of this project is to develop a case study that provides the basis for the successful replication of TVET programs at the local level that can produce home-grown entrepreneurs. To achieve this the work includes: the development of a case study based on the vocational center FADCANIC and EARTH University, the development of a correlation matrix to match FADCANIC weaknesses with EARTH University strengths, and finally the exploration of a project framework for a future regional T³ TVET program with the cooperation of EARTH University.

Site(s) Visited:

- Escuela de Agricultura de la Región Tropical Húmeda (EARTH University)
- US Embassy in Costa Rica

Description of Activities:

- Interviews with administrative personnel from EARTH's Permanent Education Program
- EARTH facility and community project tours
- Interview with agricultural and environmental personnel from US Embassy in Costa Rica

EARTH's Permanent Education Program has previously been involved with a variety of agricultural train-the-trainer programs in the region. These efforts leverage the infrastructure, talent, and notoriety of the broader EARTH University and benefit participants outside of the university's core higher education student population. This infrastructure includes an 8000 hectare campus comprised of school grounds, hotel, working demonstration fincas, with presences in both the humid (Guácimo) and, more recently, dry tropic (La Flor) production systems. The talent of EARTH university includes 40 faculty members, 20 PEP faculty and administrative staff, plus a vetted database of consultants to assist in delivery of selected outreach programming. This work leverages the global notoriety of EARTH university, with an alumni network spanning 30 countries with 80% working in their home country, and 60% of alumni working in the private sector (source: <https://www.earth.ac.cr/en/about-earth/earth-facts/>).

EARTH has relationships with ground-level educational institutions around the tropics, including 14 African countries. EARTH fosters these relationships as future students come from some of these "seed schools". Interestingly, this network has also served as a platform for enhancing

the pedagogical practices among teachers at these same institutions, and in some cases to include non-formal educators as well.

During the two-day series of interviews, EARTH PEP leadership described a series of previous train-the-trainer efforts developed by EARTH PEP in collaboration with national and regional organizations. For example, in the early-2000s EARTH PEP developed projects with support from the Ford Foundation and CRUSA (Fundación Costa Rica) aspects of which sought to enhance teaching practices of agricultural educators at high schools throughout Central America. These efforts have consisted of host country-based trainings, a series of in-person short courses on both technical and pedagogical best practices at EARTH's campus, peer evaluation, and multiplicative components at sister institutions in host countries to enhance and extend programmatic reach in accordance with EARTH's mission (<https://www.earth.ac.cr/en/about-earth/earth-facts/our-mission-vision-values/#mission>). These successes culminated in the development of a larger proposal to AECID (*La Agencia Española de Cooperación Internacional para el Desarrollo*) for a \$3M USD 5-year project to train agricultural educators across the broader CAFTA-DR region. While the proposal had broad support, its development stalled due to its timing coinciding with the international financial crisis of the late 2000s, with particularly dire effects in Spain.

The series of interviews conducted by InnovATE investigators served as an opportunity for EARTH PEP to reflect on their previous train-the-trainer project collaborations, the stalled 2009 AECID proposal, and do so within the opportunities and focal points of the current USAID InnovATE work. EARTH PEP indicates interest in exploring future train-the-trainer project collaborations which leverage EARTH's strengths and core focus areas, and which are complementary to participant countries' agricultural education mandates and capacities. Specifically, EARTH PEP sees opportunities to bring pedagogical best practices to participants, as this is within their area of expertise. EARTH PEP indicates that a great deal of consideration is required in selecting appropriate technical content, in that the information is complementary to recipient country curricula; and that this is typically achieved by either: supporting approved curricula areas for which participant country content is currently weak, or by selecting themes which are broadly applicable (e.g., business development, sustainability, etc.) and thereby receiving participant country support.

With a better understanding of the previous experiences of EARTH PEP, and their expression of interest for future work in this area, the focus of the interviews turned toward exploring potential frameworks for project development opportunities. Some of the opportunities discussed generally consisted of enhancing thematic linkages with broader regional goals, such as:

- Central America Regional Security Initiative (CARSI) (US-State: <http://www.state.gov/p/wha/rt/carsi/>) security goals, particularly among youth at risk interventions
- Economic growth and trade development goals to attempt to incorporate regional free trade agreement environmental and agricultural capacity building

(e.g., CAFTA-DR, USDA-FAS: http://www.fas.usda.gov/sites/development/files/cafta-dr_2009.pdf ; US-EPA: <https://www.epa.gov/international-cooperation/capacity-building-programs-under-dominican-republic-central-america-united#agreements>) as well as regional sustainable development goals (SDG)(<http://www.latinamerica.undp.org/content/rblac/en/home/regioninfo/>).

- Climate Change, particularly agricultural production systems within the *corredor seco* (including portions of Nicaragua, Honduras, El Salvador, Guatemala, and Mexico) with respect to food security and new Climate Smart Agriculture (<http://feedthefuture.gov/article/what-you-need-know-about-climate-smart-agriculture-and-why-it-matters>) and related need for training on new best management practices
- Among other synergistic regional and global priorities

The form of the train-the-trainer program could consist of a hybrid model incorporating both distance learning as well as appropriate in-person training and evaluation sessions. Long-term viability of the program could be enhanced via certification of participants, and their subsequent need for ongoing continuing educational units (CEUs) also offered via EARTH PEP. Certification and CEUs could generate revenue for EARTH PEP to sustain the work over the longer term. Such a certification may create a market advantage for those certified when seeking employment, leveraging EARTH University’s notoriety, as well as a platform for EARTH PEP to more broadly disseminate and enhance pedagogical best practices in sustainable agricultural education. Thereby improving educational delivery of ever-evolving curricula content for both formal and non-formal learners. The series of interviews culminated with an agreement to draft a concept paper by in spring 2016 for a train-the-trainer pilot program.

List of Contacts Made:

Last Name	First Name	Title/Organization	Contact Info (address, phone, email)
Piedra	Mario	Phd, Director, Permanent Education Program, Earth University	mpiedra@earth.ac.cr
Campos	Fabian	Community Project Manager, PEP Earth University	fcampos@earth.ac.cr
Pocasangre	Luis	PhD, Research Director, Professor of Tropical Crops, Earth University (brief discussion at lombricompost facility)	lpocasangre@earth.ac.cr
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Pérez	Alexis	Finca Bella Vista, La Argentina Agro-turistic Community	+506 8822 5925
Thomas	Shannon	Regional Environmental Assistant, Environmental Hub for Central America and the Caribbean, Embassy of the USA, Costa Rica	ThomasSB@state.gov
Bruce	Candice	Agricultural Attache, USDA Foreign Agricultural Service – Costa Rica	candice.bruce@fas.usda.gov

Appendix:

Trip Log: (activities by day)

Reunión de trabajo EARTH University y Virginia Tech

Definición de Programa de capacitación para educadores en programas TVET enfocados en agricultura y agroforestal

Asistentes

EARTH University

- Mario Alberto Piedra
- Pablo Ulloa
- Nico Evers

Virginia Tech

- Henry Quesada
- John Ignosh

Día 1, 24 de Febrero

7:00 am. Desayuno

8:00 am. Tour de instalaciones de EARTH

- 8:00 am. Presentación de InnovATE por parte de Virginia Tech
- 8:30 am. Video EARTH
- 8:45 am. Tour EARTH. Por parte de profesor o estudiante.

12:00 pm. Almuerzo

1:00 pm. Definir objetivos y alcances del programa de capacitación

- Necesidades actuales. ¿Qué estudios se tienen?
- Experiencias con programas similares en la EARTH
- Definición de fortalezas, debilidades, oportunidades, amenazas
- Definición de objetivos
- Alcances: Regiones, países

3:00 pm. Descanso

3:30 pm. Contenido del programa

- Agricultura Sostenible, incluyendo emprendedurismo
- Agroforestal
- ¿Otros?

5:00 pm. Final día 1

Día 2, 25 de Febrero.

7:00 am. Desayuno.

8:00 am. Visita a la Comunidad la Argentina. Ejemplos del modelo EARTH aplicado a pequeños empresarios. ¿Cómo se puede incorporar este modelo a programas TVET en las regiones/países seleccionados?

1:00 pm. Regreso a la EARTH

2:00 pm Financiamiento

- USAID, CRUSA
- Otros

3:00 pm. Descanso

3:30 pm. Acciones futuras

- Cooperación con Virginia Tech y Plan Piloto (¿FADCANIC?)
- Pasos a seguir. Responsables, fechas, etc

4:15 pm. Reunión con Pablo Ulloa/Nico Evers sobre futuro programa de Intercambio.

5:00 pm. Final de reunión. Salida del campus de EARTH a San Jose

Día 3, 26 de Febrero.

9:30 am. Reunión con representantes de la Embajada EEUU – San Jose, Costa Rica

10:30 Final de reunión. Viaje al aeropuerto